5935804

result in loss of user privileges and other penalties.

6159719
6085115

* * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

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5626154

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specify a corrected file name or you can enter "IGNORE" to continue
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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

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FILE 'CONFSCI' ENTERED AT 19:04:50 ON 07 SEP 2004

FILE 'HEALSAFE' ENTERED AT 19:04:50 ON 07 SEP 2004

FILE 'IMSDRUGCONF' ENTERED AT 19:04:50 ON 07 SEP 2004

FILE 'LIFESCI' ENTERED AT 19:04:50 ON 07 SEP 2004

FILE 'MEDICONF' ENTERED AT 19:04:50 ON 07 SEP 2004

FILE 'PASCAL' ENTERED AT 19:04:50 ON 07 SEP 2004

=> glucosamine and fret
L1 0 FILE AGRICOLA
L2 0 FILE BIOTECHNO
L3 0 FILE CONFSCI
L4 0 FILE HEALSAFE
L5 0 FILE IMSDRUGCONF
L6 0 FILE LIFESCI
L7 0 FILE MEDICONF
L8 0 FILE PASCAL

TOTAL FOR ALL FILES
L9 0 GLUCOSAMINE AND FRET

=> glucosamine and (fluorescer or fluorephore) and quench
L10 0 FILE AGRICOLA
L11 0 FILE BIOTECHNO
L12 0 FILE CONFSCI
L13 0 FILE HEALSAFE
L14 0 FILE IMSDRUGCONF

```
L15             0 FILE LIFESCI
L16             0 FILE MEDICONF
L17             0 FILE PASCAL

TOTAL FOR ALL FILES
L18             0 GLUCOSAMINE AND (FLUORESCER OR FLUOREPHORE) AND QUENCH

=> glucosamine and (fluorescence or fluorescent) and quench
L19             0 FILE AGRICOLA
L20             0 FILE BIOTECHNO
L21             0 FILE CONFSCI
L22             0 FILE HEALSAFE
L23             0 FILE IMSDRUGCONF
L24             0 FILE LIFESCI
L25             0 FILE MEDICONF
L26             0 FILE PASCAL

TOTAL FOR ALL FILES
L27             0 GLUCOSAMINE AND (FLUORESCENCE OR FLUORESCENT) AND QUENCH

=> glucosamine and nanocrystal
L28             0 FILE AGRICOLA
L29             0 FILE BIOTECHNO
L30             0 FILE CONFSCI
L31             0 FILE HEALSAFE
L32             0 FILE IMSDRUGCONF
L33             0 FILE LIFESCI
L34             0 FILE MEDICONF
L35             0 FILE PASCAL

TOTAL FOR ALL FILES
L36             0 GLUCOSAMINE AND NANOCRYSTAL

=> file .chemistry
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                6.83       7.04

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=> glucosamine and (fluorescent or fluorescence or fluorescer or fluophore or
fluorophore) and quench
```

L37 2 FILE CAPLUS
L38 0 FILE BIOTECHNO
L39 0 FILE COMPENDEX
L40 0 FILE ANABSTR
L41 0 FILE CERAB
L42 0 FILE METADEX
L43 125 FILE USPATFULL

TOTAL FOR ALL FILES
L44 127 GLUCOSAMINE AND (FLUORESCENT OR FLUORESCENCE OR FLUORESCER OR FLUOPHORE OR FLUOROPHORE) AND QUENCH

=> d l2 ibib abs total
L2 HAS NO ANSWERS
L2 0 SEA FILE=BIOTECHNO ABB=ON PLU=ON GLUCOSAMINE AND FRET

=> d l37 ibib abs total

L37 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1981:42756 CAPLUS
DOCUMENT NUMBER: 94:42756
TITLE: **Fluorescence** probes as monitors of surface membrane fluidity gradients in murine fibroblasts
AUTHOR(S): Schroeder, Friedhelm
CORPORATE SOURCE: Dep. Pharmacol., Univ. Missouri Sch. Med., Columbia, MO, USA
SOURCE: European Journal of Biochemistry (1980), 112(2), 293-307
CODEN: EJBCAI; ISSN: 0014-2956
DOCUMENT TYPE: Journal
LANGUAGE: English
AB **Fluorescence** probe mols. were utilized in conjunction with quenching agents to investigate the possibility that mammalian cell surface membranes may display vertical asymmetry of physicochem. properties. Two different approaches indicated that the outer monolayer of a murine fibroblast surface membrane was more fluid than the inner monolayer. First, **glucosamine** trans-parinarate (I) did not penetrate intact LM cells (a strain of transformed murine fibroblasts) or phagosomes derived from these cells. This probe mol. was easily accessible to nonpenetrating quenching agents such as trinitrophenylglycine (II), indicating that it resided in the exposed membrane monolayer. The **fluorescence** polarization, P, of I in intact LM cells was 0.218, whereas in phagocytosed latex bead membranes it was 0.248. Second, trans-parinaric acid (III), 1,6-diphenyl-1,3,5-hexatriene (IV), and N-phenyl-1-naphthylamine (V) were used in **fluorescent** membrane probes in isolated plasma membrane vesicles. Their **fluorescence** in the plasma membrane was quenched by either covalently linking trinitrophenyl groups to exposed NH2 constituents on the membrane surface or by adding the water-soluble nonpenetrating quenching agent II. Trinitrophenylamino groups have an absorption maximum at 415 nm and can therefore chemical **quench** the **fluorescence** of III, IV, and V which have **fluorescence** emission maximum near 415 nm. With both methods, when only the outer monolayer amino groups were trinitrophenylated, the absorption-corrected **fluorescence** emission and the relative **fluorescence** efficiency of III in the plasma membrane were decreased by 45% and 44%, resp. Neither quenching method altered the **fluorescence** lifetime of III. In contrast, when both sides of the plasma membrane had covalently linked trinitrophenyl groups, these parameters were diminished by 90-95%. Similar results were obtained with IV and V. Polarization measurements of III indicated that the inside monolayer of the membrane was more rigid (P = 0.364) than the whole membrane (P = 0.323). Similar results were obtained with IV. However, V, which resides near the polar interface of the bilayer, showed

no difference in polarization upon quenching by either method. Thus, results obtained with I in the absence of quenching agents such as II or with III and IV in the presence of quenching agents indicated that a vertical asymmetry or gradient of certain physicochem. parameters may exist in LM cell plasma membranes. This asymmetry could be altered by lipid polar head group manipulation.

L37 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1980:210897 CAPLUS
DOCUMENT NUMBER: 92:210897
TITLE: Kinetic mechanism of glucose-6-phosphate dehydrogenase from the lactating rat mammary gland. Implications for regulation
AUTHOR(S): Shreve, David S.; Levy, H. Richard
CORPORATE SOURCE: Dep. Biol., Syracuse Univ., Syracuse, NY, 13210, USA
SOURCE: Journal of Biological Chemistry (1980), 255(7), 2670-7
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The steady state kinetic mechanisms for glucose 6-phosphate dehydrogenase (I) from lactating rat mammary glands were derived for the NADP-linked and NAD-linked reactions. Initial velocity studies and inhibition patterns with NADPH and **glucosamine** 6-phosphate were consistent with sequential mechanisms with random order addition of glucose 6-phosphate (II) and coenzyme. No evidence was found for I isomerization or dead-end complexes. Both NADP and II were found to **quench** the **fluorescence** of the enzyme. The dissociation constant for NADP derived from **fluorescence** quenching titrns. was similar to the kinetically derived binding constant, consistent with random order binding. Anal. of **fluorescence** quenching by II revealed the presence of 2 classes of binding sites on the enzyme with different affinities for the substrate. Isotope effects were determined using both 2H and 3H. From these it was concluded that the transfer of H from II to NADP limits the overall reaction rate by only 15-19%. It was concluded that the mechanism for the reaction, with either NADP or NAD as coenzyme, is probably partial rapid equilibrium random. Such a mechanism would be advantageous for mammary I because it would permit II to counteract NADPH inhibition. Support for this idea was provided by expts. in which increased concns. of II partially reversed the inhibition of purified mammary I at high NADPH/NADP ratios.

=> file .chemistry

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	25.23	32.27

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=> glucosamine and (fluorescent or fluorescence or fluorescer or fluophore or fluorophore) and quench
L45 2 FILE CAPLUS
L46 0 FILE BIOTECHNO
L47 0 FILE COMPENDEX
L48 0 FILE ANABSTR
L49 0 FILE CERAB
L50 0 FILE METADEX
L51 125 FILE USPATFULL

TOTAL FOR ALL FILES
L52 127 GLUCOSAMINE AND (FLUORESCENT OR FLUORESCENCE OR FLUORESCER OR FLUOPHORE OR FLUOROPHORE) AND QUENCH

=> file .meeting
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accessing the remaining file names entered.
ENTER A FILE NAME OR (IGNORE):ignore

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	20.13	52.40

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
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FILE 'PASCAL' ENTERED AT 19:09:26 ON 07 SEP 2004

=> glucosamine and (fluorescent or fluorescence or fluorescer or fluophore or fluorophore) and quench
L53 0 FILE AGRICOLA
L54 0 FILE BIOTECHNO
L55 0 FILE CONFSCI
L56 0 FILE HEALSAFE
L57 0 FILE IMSDRUGCONF
L58 0 FILE LIFESCI
L59 0 FILE MEDICONF
L60 0 FILE PASCAL

TOTAL FOR ALL FILES
L61 0 GLUCOSAMINE AND (FLUORESCENT OR FLUORESCENCE OR FLUORESCER OR FLUOPHORE OR FLUOROPHORE) AND QUENCH